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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,129	06/13/2002	Anant Achyut Setlur	RD-28679	3223
6147	7590	07/31/2006	EXAMINER HODGES, MATTHEW P	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309			ART UNIT 2879	PAPER NUMBER

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,129

Applicant(s)

SETLUR ET AL.

Examiner

Matt P. Hodges

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 is/are allowed.
- 6) ☒ Claim(s) 7-17, 19-22, 24-28, 30, 31, 33, 34, 36-39, 41, 42, 44-47, 49, 50, 52-55, 57, 59-61, 63 and 65-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 7-17,19-22,24-31,33,34,36-39,41,42,44-47,49,50,52-55,57,59-61,63 and 65-84.

DETAILED ACTION

Response to Amendment

The Amendment, filed on 5/5/2006, has been entered and acknowledged by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-17, 19-22, 33, 34, 36-39, 41, 42, 44-47, 57, 59, 63, 65, 68-74, 76-79, and 81-84 are rejected under 35 U.S.C. 102(b) as being anticipated by De Backer et al. (US 5,471,113).

Regarding claims 7-11, 14-17, 19-22, 33, 34, 36-39, 41, 42, 44-47, 68-71, 74, 76-79, and 81, De Backer discloses a gas discharge lamp including a tube filled with mercury vapor. The tube is coated with a phosphor blend including the following phosphors $\text{BaAl}_8\text{O}_{13}:\text{Eu}$ and $\text{Tb}_3\text{Al}_5\text{O}_{12}:\text{Ce}$. (Column 3 lines 9-11 and Column 4 lines 45-55). It is noted that the mercury discharge tube of this type emits UV radiation primarily at around 254nm and 405nm. The phosphor blend is likewise sensitive to this wavelength. The tube further emits a white light. (Column 1 lines 30-31).

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Regarding claims 12, 13, 72 and 73, De Backer does not explicitly state the color coordinates of the white light however color coordinates of a phosphor blend are an inherent property of the blend itself. In this case the color coordinates are substantially close to the reference color of a black body locus. (Column 1 lines 30-50)

Regarding claims 57, 59, and 82, De Backer states the CRI range being greater than 80. (Column 1 lines 20-25)

Regarding claims 63, 65, 83, and 84, De Backer does not explicitly state the CCT range of the end phosphor blend however the CCT is an inherent property of the blend itself. In this case the CCT would be less than 6500K and greater than 2700K. (Column 1 lines 30-50)

Claims 7, 8, 17, 19-22, 24-28, 30, 31, 33, 34, 41, 42, 44-47, 49, 50, 52-55, 59-61, and 65-84 are rejected under 35 U.S.C. 102(e) as being anticipated by Juestel et al. (US 2002/0008462).

Regarding claims 7, 8, 17, 19-22, 24-28, 30, 31, 33, 34, 41, 42, 44-47, 49, 50, 52-55, 68-71, and 74-81, Juestel discloses a gas discharge lamp including a tube filled with mercury vapor. The tube is coated with a phosphor blend including the following phosphors $\text{Ca}_5(\text{PO}_4)_3(\text{F},\text{Cl}):\text{Sb},\text{Mn}$; $(\text{Sr}, \text{Mg})_3(\text{PO}_4)_2:\text{Sn}$; $\text{Sr}_5(\text{PO}_4)_3(\text{F},\text{Cl}):\text{Sb}$; $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$; $\text{CeMgAl}_{11}\text{O}_{19}:\text{Tb}$. (Paragraph 0021). It is noted that the mercury discharge tube of this type emits UV radiation primarily at around 254nm and 405nm. The phosphor blend is likewise sensitive to this wavelength. The tube further emits a white light. (Paragraph 0021).

Regarding claims 72 and 73, Juestel does not explicitly state the color coordinates of the white light however color coordinates of a phosphor blend are an inherent property of the blend

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itself. In this case the color coordinates are substantially close to the reference color of a black body locus. (Paragraph 0004)

Regarding claims 59-61, and 82, Juestel states the CRI range being greater than 80. (Paragraphs 0004 and 0011)

Regarding claims 65-67, 83, and 84, Juestel states the use of the phosphors for lamps with a color temperature across the entire spectrum of fluorescent lamps including both 2700-6000K and also for soft white light below 2700K. Juestel discloses the only difference in the different color temperature lamps being the absorption of the blue mercury lines at an optional amount. As such, the lamp disclosed anticipates all color temperature ranges specified depending on the optional thickness of the pigment layer. (Paragraphs 0004, 0006 and 0008)

Allowable Subject Matter

Claim 29 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 29, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 29, and specifically comprising the limitation of a phosphor blend of the stated phosphors where the phosphor blend absorbs EM radiation in a range from about 200nm to 400nm. See applicant's response filed 12/14/2004 for further explanation.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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